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Testing Frequency and Junior High Students

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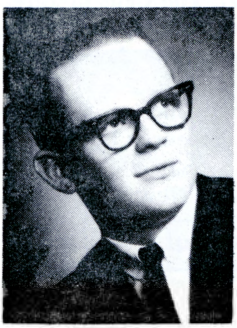
As a matter of habit I have always given a twelve to fifteen question quiz to my junior high life science students every five to seven classroom days. This was always done on the untested assumption that a more frequent test versus a test given after three to four weeks of study would tend to motivate the student, serve as a learning device, and lessen the amount of cramming and test anxiety experienced by the student. Realizing that instructional time is very valuable and that all activities not enhancing the learning process should be eliminated, I attempted to measure the amount of subject matter learned using two different testing frequencies.



Glass

Four classes, totaling ninety-two students, were selected and divided into two groups of equal ability on the basis of a teacher made pre-test in introductory biology. One group (Group I) was given three quizzes of twelve to fifteen questions each after each six days of classroom instruction. The other group (Group II) was given additional instruction time including laboratory experience, reading and class discussions during these testing periods. An aggregate of the three quizzes given Group I was given to Group II after eighteen days of classroom instruction. A mean of this test along with an aggregate mean of Group I tests is found under quiz mean in Table 1. An unannounced post-test was given thirty days after the introductory unit was completed.

Table 1 gives the results of these tests.

Table 1

	Pre-test Mean	Quiz Mean	Post-test Mean
Group I	17.65	19.20	21.02
Group II	18.09	19.29	21.30

A t-test was applied to the means of the two groups for each test, and no significant difference was found between the means of the various tests at the .001 level of significance. There was, however, a significant increase in the post-test mean over the pre-test mean in both groups at the .001 level of significance.

From the above data which supports several earlier projects at the University of Iowa dealing with frequency of testing (Hoglan, 1932) it

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appears that the more frequent test does not necessarily motivate the student more nor does the longer interval between tests appears to have a detrimental effect on the students' rate of learning.

After searching the literature and quantitatively evaluating the growth of my own students using two different testing frequencies, I now feel that interval lengths between tests and test size should be varied. The varying of interval length and test size gives all students the opportunity to excel at their "specialty" besides giving a refreshing change of pace to your class routine.

LITERATURE CITED

Hoglan, John Cecil. (1932) **Testing as Motivation in American History**. Unpublished Master's Thesis, Department of Education, Graduate College, University of Iowa.

Dr. Salsbury's Laboratories
Charles City, Iowa

The implications cast by Westerman's article "Surgical Techniques in High School Biology" left me particularly disturbed.

Peterson

We who are actively involved in the use of animals for research take every precaution to minimize pain and discomfort to laboratory animals and to refrain from the conduction of unnecessary procedures. The various antivivisectionist organizations in the United States were recently successful in securing congressional passage of a moderate bill concerning the use and care of laboratory animals.

Yet the antivivisectionists are not satisfied with the moderate legislation now on the books. Because the techniques as outlined in the article cannot be carried out in high schools except under the supervision of properly qualified and trained scientific personnel, and because this type of experiment undoubtedly causes needless pain and suffering to test animals, the article, and the activities which will likely be conducted because of it, give cause and added substance to the allegations of antivivisectionist groups. Should the severe and highly restrictive legislation desired by many of the antivivisectionists be enacted into law, research activities at all levels of inquiry will likely be significantly impaired.

Since the pace of scientific studies is so integral a part of our civilization and our future, legislation, which impedes the progress of our understanding the natural world, should only be considered in full cognizance of the dangers involved.

Innumerable experiments which will not necesitate the use of surgery on pain-sensitive living things can be executed in the high school. I cannot see that anything is gained by the suggested surgical tcehniques other than to satisfy morbid curiosity.

I sincerely hope that in the future science education journals will be most discerning in the selection of articles related to surgical procedures for high school experiments. Any contributions to the fires of unreason which surround vivisection must be considered detrimental contributions.

Sincerely,
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